

REMARKS

Claims 1-24 are all the claims presently pending in the application.

While Applicant believes that the claims are patentable as currently written, to speed prosecution, claims 1, 3, 5-8, 10-16, 18-20, and 22-24 have been amended to clarify, and to define more clearly and particularly the features of the present invention.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 5 and 6 stand rejected under 35 U.S.C. § 112, second paragraph.

Claims 1-4, 7-11, 14, 18-20, and 22-24 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Sharma (U.S. Patent No. 6,182,109). Claims 1-4, 6-11, 13, 14, 16-22, and 24 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Cherkasova, et al. (U.S. Patent No. 6,360,270; hereinafter "Cherkasova"). Claim 17 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Sharma in view of what was well known at the time of the invention. Claims 5, 12, and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sharma in view of Fodor, et al. (U.S. Patent No. 6,438,104; hereinafter "Fodor"). Claims 5, 12, and 15 also stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Cherkasova in view of Fodor.

These rejections are respectfully traversed in the following discussion.

I. THE CLAIMED INVENTION

The exemplary aspects of the claimed invention are directed to a server and network system and received load control method.

Applicant discloses that, when a part of the received data has to be discarded at the processing unit with storage, the performance of the processing unit can be deteriorated and in some cases may stop the operation at the processing unit with storage (e.g., see specification at page 9, lines 10-12).

Thus, in order to avoid this problem of deterioration of performance of the processing unit, an exemplary feature of the claimed invention provides a shaper that limits the received data load to a designated value so that the received data load exceeding the data receiving capacity of the processing unit with storage is not applied to the processing unit with storage at all. The designated value is set corresponding to the data receiving capacity of the processing unit with storage (e.g., see specification at page 9, lines 13-18). That is, the discarding is not performed at the processing unit with storage (e.g., see specification at page 10, lines 1-3 and 12-13).

Another exemplary aspect of the claimed invention sets the designated value of the shaper to the data receiving capacity of the processing unit with storage, including a margin (e.g., see specification at page 9, lines 16-23). That is, the shaper operates to make the receiving load limit at the processing unit less than the receiving capacity of the processing unit (i.e., the margin = the receiving capacity of the processing unit - the designated value). As such, the processing unit according to the exemplary aspects of the

claimed invention, can execute detecting of an abnormal state, displaying the abnormal state, and recovering processes by using the margin which is provided by the shaper discarding the exceeded received data.

Thus, the claimed invention is capable of preventing a deterioration of the performance of the processing unit and also preventing the occurrence of stopping of the operation of the processing unit (e.g., see specification at page 10, lines 14-21).

For example, in an illustrative, non-limiting aspect of the present invention, as defined by independent claim 1, a server includes processing means for processing data transferred from plural clients, comparing means for comparing an amount of received load corresponding to each received data transferred from plural clients with a designated value, and judging means for judging whether a part of the each received data should be discarded prior to receipt of at least a portion of the amount of received load by the processing means of the server. The server controls the received load corresponding to each received data transferred from the plural clients based on a judged result of the judging means.

Independent claims 3, 7, 10, 14, 18, 20, and 21 recite somewhat similar features.

II. THE REJECTION UNDER 35 U.S.C. § 112

Claims 5 and 6 stand rejected under 35 U.S.C. § 112, second paragraph.

Claims 5 and 6 are amended above to define more clearly and particularly the features of the claimed invention, thereby overcoming this rejection.

Therefore, the Examiner is requested to withdraw this rejection.

III. THE PRIOR ART REJECTIONS

A. Claims 1-4, 7-11, 14, 18-20, and 22-24 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Sharma. For at least the following reasons, Applicant respectfully traverses this rejection.

The Examiner alleges that Sharma discloses all of the features of the claimed invention. Particularly, the Examiner alleges that Sharma discloses a “*judging means for judging whether a part of said received data should be discarded prior to receipt of at least a portion of said amount of received load by said processing means of said server (col. 24, lines 16-24, “the client request is rejected” before the request is received by the thread pool)*” (see Office Action at page 4, lines 1-4; emphasis added).

However, as the Examiner points out, Sharma merely discloses that “the client request is rejected”, not that “a part of said received data should be discarded”, as recited in, for example, independent claim 1. That is, Sharma discloses rejecting the whole client request, or the entire client request, not “a part of” the client request. Indeed, the Examiner does not appear to have considered or provided support for this feature of the claimed invention in rejecting the claims.

In comparison, independent claim 1 recites, *inter alia*, a server, including:

processing means for processing data transferred from plural clients;
comparing means for comparing an amount of received load corresponding to each received data transferred from plural clients with a designated value; and
judging means for judging whether a part of said each received data should be discarded prior to receipt of at least a

*portion of said amount of received load by said processing means of said server,
wherein said server controls said received load corresponding to said each received data transferred from said plural clients based on a judged result of said judging means (emphasis added).*

That is, the shaper limits the received data load to a designated value so that the received data load exceeding the data receiving capacity of the processing unit with storage is not applied to the processing unit with storage, thereby avoiding deterioration in performance and/or the stopping of operation at the processing unit with storage (e.g., see specification at page 9, lines 8-16).

As mentioned above, Sharma merely discloses that “the client request is rejected”, not that “a part of said received data should be discarded”, as recited in, for example, independent claim 1. That is, Sharma discloses rejecting the whole client request (e.g., see Figure 8A, step 587; see also Sharma at column 24, lines 16-24), not “a part of” the client request.

For at least the foregoing reasons, Applicant respectfully submits that Sharma clearly does not disclose or suggest all of the features of the claimed invention, as recited for example, in independent claims 1, 3, 7, 10, 14, 18, 20, and 24. Thus, the Examiner is requested to withdraw this rejection and to permit claims 1-4, 7-11, 14, 18-20, and 22-24 to pass to immediate allowance.

B. Claims 1-4, 6-11, 13, 14, 16-22, and 24 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Cherkasova. For at least the following reasons, Applicant respectfully traverses this rejection.

In the present Office Action, the Examiner cites column 5, lines 52-53 of Cherkasova as disclosing that “ ‘*then for the time interval, the admission controller 14 will reject all new sessions’ in which case the data received corresponding to the new session will not be received by the server processor, but will be rejected prior to such receipt*” (see Office Action at page 8, lines 1-7).

However, Applicant respectfully submits that the Examiner clearly is mischaracterizing Cherkasova, and indeed, has taken this statement of Cherkasova out-of-context with the surrounding text. Particularly, the Examiner has not included the remaining portion of the sentence which the Examiner cites from Cherkasova.

Considered as a whole for what it fairly teaches, the cited portion of Cherkasova discloses that:

If the utilization rises above a specified threshold, then for the next time interval, the admission controller 14 will reject all new sessions and service only existing sessions. Once the utilization falls below the given threshold, then for the next time interval, the admission controller 14 will admit new sessions again while continuing to service existing sessions.

(see Cherkasova at column 5, lines 50-57; emphasis added).

That is, Cherkasova discloses that, if the new request message corresponds to a session that is in-progress (i.e., a current session or an existing session), then the

processing proceeds directly to the server *without* determining whether sufficient resources are available in the server.

Applicant respectfully submits that, contrary to the Examiner's position, Cherkasova merely is concerned with ensuring that messages which relate to a session in-progress generally are admitted (e.g., see Cherkasova at column 2, lines 40-47).

Cherkasova simply discloses comparing a new request message with an entry transaction list (e.g., see Figure 2; see also column 2, lines 47-49, and column 5, lines 9-21 and lines 41-65). If the new request message corresponds to a session that is identified in the transaction list (i.e., the new request message is part of a current or existing session), then the processing proceeds *directly* to the server (see Figure 2, steps 32, 34, and 42).

Cherkasova does not, however, disclose, suggest, or even mention that a determination is made as to whether sufficient resources are available in the server if the new request message is part of an *existing session*. Instead, Cherkasova discloses that, if the new request message corresponds to a session that is in-progress (i.e., a current session or an existing session), then the processing proceeds directly to the server *without* determining whether sufficient resources are available in the server.

On the other hand, if the new request message does not correspond to a session that is identified in the transaction list (i.e., the new request message is part of a new session, not an existing session), only then does the admission controller determine whether sufficient resources are available in the server to adequately service a new session (e.g., see column 5, lines 41-46; see also, Figure 2, steps 32, 34, and 36).

That is, the admission controller only determines whether adequate system resources are available in the server when the new request message does *not* correspond to a session that is identified in the transaction list (i.e., an existing session; e.g., see Cherkasova at column 3, lines 64-67). Alternatively, if the new message is identified in the transaction list, then the new message is passed directly to the server without regard for the availability of the system resources of the server.

In comparison, independent claim 1 recites, *inter alia*, a server, including:

processing means for processing data transferred from plural clients;
comparing means for comparing an amount of received load corresponding to each received data transferred from plural clients with a designated value; and
judging means for judging whether a part of said each received data should be discarded prior to receipt of at least a portion of said amount of received load by said processing means of said server,
wherein said server controls said received load corresponding to said each received data transferred from said plural clients based on a judged result of said judging means
(emphasis added).

Applicant notes that, to clarify and define more clearly the features of the claimed invention as exemplarily illustrated in the present application and drawings (e.g., see Figure 3), the language of independent claims 1, 3, 7, 10, 14, 18, 20, and 21 has been amended merely to clarify that the present invention compares the amount of received load corresponding to each received data which is transferred from said plural clients, not merely for “some data” which happens to be received by the server, as alleged by the Examiner (see Office Action at page 17, second paragraph).

That is, the server according to an exemplary aspect of the claimed invention compares the amount of the received load corresponding to **each** received data with a designated value *prior to* receipt of at least a portion of the amount of received load for **each** received data by the processing unit. Clearly, each received data would include data received for both existing sessions and new sessions.

Accordingly, the claimed invention is capable of avoiding problems with deterioration of performance of the processing unit, since the received data load, of each received data, exceeding the data receiving capacity of the processing unit is *not* applied to the processing unit with storage at all. That is, the comparing is *not* performed at the processing unit with storage (e.g., see specification at page 9, lines 13-18, and page 10, lines 1-3 and 12-13). Thus, the claimed invention is capable of preventing a deterioration of the performance of the processing unit and also preventing the occurrence of stopping of the operation of the processing unit (e.g., see specification at page 10, lines 14-21).

Applicant submits that Cherkasova clearly does not disclose or suggest all of the novel and unobvious features of the claimed invention, for example, as defined by independent claim 1, or for that matter, the advantages derived therefrom.

To summarize, Cherkasova compares the new message to a transaction list to determine if the new message is part of an existing session (e.g., see column 2, lines 47-49).

In contrast, the claimed invention compares the amount of the received load corresponding to **each** received data with a designated value *prior to* receipt of at least a portion of said amount of received load by said processing unit.

For the foregoing reasons, Applicant respectfully submits that the Examiner clearly is mischaracterizing Cherkasova, and indeed, has taken the cited portion of Cherkasova out-of-context with the surrounding text of the disclosure. Particularly, the Examiner has not included the remaining portion of the cited disclosure from Cherkasova.

Thus, Applicant respectfully submits that Cherkasova clearly is different than the claimed invention, and does not disclose or suggest all of the features of the claimed invention, as defined, for example, by independent claim 1.

For somewhat similar reasons as those set forth above, Applicant submits that Cherkasova also does not disclose or suggest all of the features of independent claims 3, 7, 10, 14, 18 and 20. Therefore, Applicant also requests that the Examiner withdraw the rejection of these claims and permit these claims to pass to immediate allowance.

As an aside, Applicant notes that in the “*Response to Arguments*” section of the present Office Action, the Examiner alleges that the specification of the present application raises questions with respect to whether any structure or equivalents thereof for the “means for setting a shaper value” or “means for comparing” would convey to someone of ordinary skill in the art any physical structure of the claims “means” and also that Applicant’s specification allegedly fails to define the term “shaper” (e.g., see Office Action at page 18, first paragraph).

Applicant respectfully submits, however, that it is unclear whether the above mentioned statements by the Examiner were intended to form a rejection of the claims (e.g., under 35 U.S.C. § 112). Should the Examiner wish to raise these issues in a formal

rejection, Applicant respectfully requests that the Examiner provide a properly supported rejection under the appropriate section of 35 U.S.C. § 112 in the next Office Action.

Applicant respectfully notes that (as the Examiner points out), the present application discloses exemplary aspects of the “means-plus-function” elements which are recited in the claims (e.g., see specification at page 7, line 5 to page 10, line 21; e.g., see also Figure 2).

With respect to the term “shaper”, Applicant respectfully submits that the exemplary aspect of the “shaper”, as exemplarily illustrated in Figure 2, monitors the amount of received data at the input port of the sever 1 (e.g., see specification at page 7, lines 26-27).

C. Claim 17 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Sharma in view of what was allegedly well known at the time of the invention.

However, for the reasons set forth above, Applicant submits that Sharma does not disclose or suggest all of the features of claim 14, from which claim 17 depends.

Moreover, Applicant submits that it would not be appropriate to rely on “well known” prior art to make up for the deficiencies of Sharma, with respect to independent claim 1, since such would not serve merely to “fill in the gaps”.

Therefore, Applicant respectfully submits that claim 17 is patentable over Sharma and that the rejection of claim 17 should be withdrawn.

D. Claims 5, 12, and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sharma in view of Fodor.

The Examiner acknowledges that Sharma does not disclose the feature of early packet discard. However, the Examiner alleges that Fodor makes up for the deficiencies of Sharma by disclosing early packet discard.

Applicant respectfully submits, however, that claims 5, 12, and 15 do not merely recite using early packet discard, as alleged by the Examiner. Instead, claim 5 recites that *“when said shaper means judges that the amount of said received load exceeds said shaper value and discards a part of said each received data, and when a part of said each received data is discarded by utilizing an EPD (early packet discard), a remaining part of said each received data is discarded”* (emphasis added). Claims 12 and 15 also recite somewhat similar features as claim 5.

That is, in the claimed invention, when a part of each received data is discarded using an EPD, a remaining part of each received data also is discarded. Applicant submits that the Examiner has not established, or even mentioned, how the cited references disclose or suggest this feature of the claims.

As the Examiner surely knows, to establish a *prima facie* case of obviousness of the claimed invention, the Examiner must identify each and every element of the claims in the cited references, provide a reasonable motivation for doing that which the inventor has done, and show that there would have been a reasonable expectation of success to do that which the inventor has done.

In this case, Applicant respectfully submits that the Examiner has not considered all of the features of the claimed invention, as recited in claims 5, 12, and 15, and therefore, has not established a *prima facie* case of obviousness with respect to at least these claims.

Thus, the Examiner respectfully is requested to withdraw this rejection.

E. Claims 5, 12, and 15 also stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Cherkasova in view of Fodor.

For the reasons set forth above, Cherkasova neither discloses nor suggests all of the features of claims 3, 10, and 14, from which claims 5, 12, and 15 depend. Moreover, Fodor does not make up for the deficiencies of Cherkasova. Indeed, Fodor is not even relied upon for disclosing the claimed features for which the disclosure of Cherkasova clearly is deficient.

Therefore, Applicant respectfully submits that claims 5, 12, and 15 would not have been obvious over Cherkasova and Fodor, either individually or in combination.

IV. CONCLUSION AND INFORMALITIES

The Examiner also objects to claims 3, 10, 14, and 21. Claims 3, 10, 14, and 21 have been amended in accordance with the Examiner's suggestion. Therefore, Applicant requests that the Examiner withdraw these objections.

In view of the foregoing, Applicant submits that claims 1-24, all the claims presently pending in the application, are patentably distinct over the prior art of record

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and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date: MAY 25, 2005


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